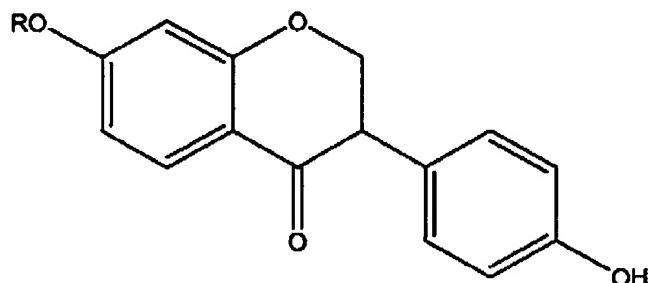


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APPENDIX A

CLEAN COPY OF CLAIMS AS AMENDED HEREIN

1. A method for inhibiting ALDH-2 in a human comprising contacting ALDH-2 with a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a

sugar moiety;

peptide;

polyether;

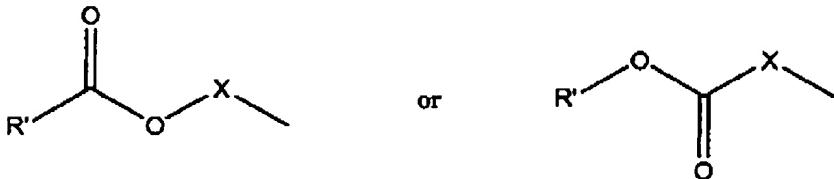
straight chain alkyl having 1-11 carbon atoms, or branched chain alkyl having 1-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 1-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

hydroxyalkyl where the alkyl portion is straight chain alkyl having 2-1 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

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aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

carboxylalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; or



where X is straight chain alkylene having 2-11 carbon atoms, or branched chain alkylene having 2-30 carbon atoms, where the branched chain alkylene comprises a straight chain alkylene portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and

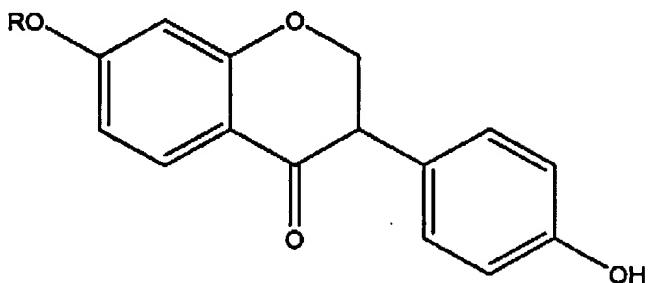
R' is straight or branched alkyl having 1-6 carbon atoms,

in an amount effective to increase concentration of 5-hydroxyindole-3-acetic acid or 3,4-dihydroxy phenylacetic acid.

2. The method of claim 1 wherein the sugar moiety is glucosyl, L or D aldo or keto-tetrose, pentose, heptose, an amino, alcohol or acid derivative of tetrose, pentose, hexose or heptose, a deoxyanalog of tetrose, pentose, hexose or heptose.

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3. A method for increasing the concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-acetaldehyde formed during catabolism of serotonin or dopamine in a human comprising administering a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a

sugar moiety selected from the group consisting of L and D, aldo- and keto-, tetroses, pentoses, heptoses, amino derivatives of tetroses, pentoses, or heptoses, alcohol derivatives of tetroses, pentoses, or heptoses, acid derivatives of tetroses, pentoses, or heptoses and deoxy analogs of tetroses, pentoses, or heptoses;

peptide;

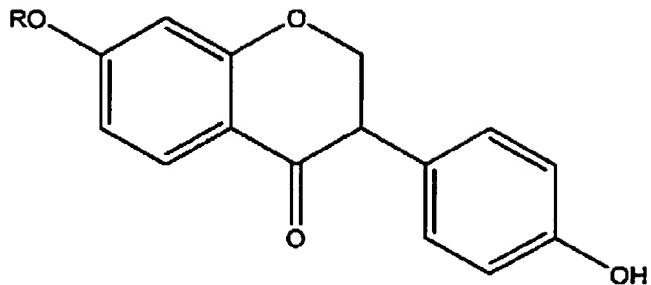
polyether; or

aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

in an amount effective to increase the concentration of an aldehyde formed during catabolism of a neurotransmitter.

13. A method for therapeutically reducing alcohol consumption in a human in need thereof comprising administering to the human a compound of formula I

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Formula I

wherein:

R is substituted or unsubstituted and is a

peptide;

polyether; or

aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alky groups having 1-6 carbon atoms;

in an amount effective to increase the concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-acetaldehyde formed during catabolism of serotonin or dopamine.